Installation Instructions

LME 924 Emergency Module

READ AND FOLLOW ALL SAFETY INSTRUCTIONS!
SAVE THESE INSTRUCTIONS AND DELIVER TO OWNER AFTER INSTALLATION

IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

- Do not use outdoors.
- Use only indoors in dry, relatively clean, non-condensing humidity environments.
- Do not mount near gas or electric heaters.
- Equipment should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this equipment for other than its intended use.

SAVE THESE INSTRUCTIONS

To reduce the risk of death, injury or property damage from fire, electric shock, cuts, abrasions, falling parts, and other hazards:

- Service of the equipment must be performed by qualified service personnel.
- Installation and maintenance must be performed by a person familiar with the construction and operation of this product and any hazards involved. All applicable codes and ordinances must be followed.
- Read this document before installing, servicing, or maintaining this equipment. These instructions do not cover all installation, service, and maintenance situations. If your situation is not covered, or if you do not understand these instructions or additional information is required, contact Acuity Controls.

WARNING

Before installing, servicing, or maintaining this equipment, follow these general precautions.

To reduce the risk of electrocution:

- Make sure the equipment is properly grounded.
- Always de-energize any equipment before connecting to, disconnecting from, or servicing the equipment.

To reduce the risk of fire:

- Use supply conductors with a minimum installation temperature rating as specified.

To reduce the risk of personal injury from cuts, abrasions:

- Wear gloves to prevent cuts or abrasions from sharp edges when removing from carton, handling and maintaining this equipment.
- Do not install damaged equipment.

Acuity Controls, a division of *Acuity Brands* Inc., assumes no responsibility for claims arising out of improper or careless installation or handling of this product.

SAVE THESE INSTRUCTIONS

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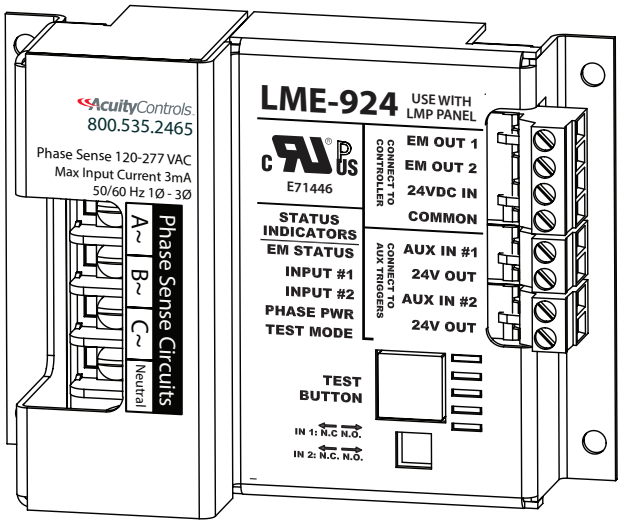
Installation Instructions

LME 924 Emergency Module

Description

The LME-924 actively monitors 1 or 3 phase AC input sources to determine if the available voltage is within an acceptable operating range for the lighting control equipment. If the phases brownout or blackout, the LME 924 activates "emergency mode" which signals to connected lighting control equipment to initiate its emergency lighting sequence(s). LEDs indicate the current status of input voltage, auxiliary contacts and the emergency output contacts. A push button allows for manual test without disconnecting phase sense feed wiring.



LME 924
EMERGENCY MODULE

Before You Start

1. Always disconnect all power.
2. Install in accordance with the National Electrical Code and any other codes which may apply.
3. Use only as intended.
4. For use with Acuity Controls LMP Lighting Management Panels.

Specifications

Listings:
US R/C FTBR2: CAN. R/C FTBR8 or equivalent marking.

Ratings:
Input Voltage: 120-277Vac, 50/60Hz, 1, 2 or 3 phase
Input Current: 3mA maximum, use with circuits protected by a 15A or 20A circuit breaker.

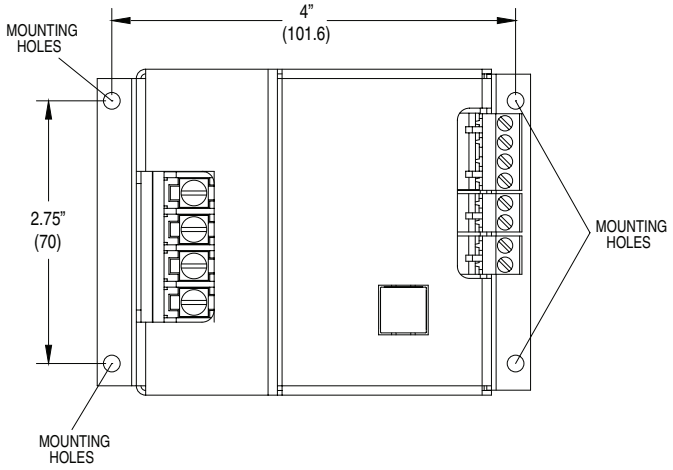


Figure 1 - LME 924 Mounting Details
(Dimensions are in/mm)

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LME 924 Installation and Wiring

1. **INSTALL LME 924 MODULE.**
   Secure the LME 924 into a grounded metal enclosure (NEMA 1 or higher) using the 4 screws provided. Torque screws to 24 inch-lbs. See *Figure 1* for mounting details.
2. **INSTALL LINE VOLTAGE POWER SENSE CONDUCTORS**
   Locate and lock out the line voltage supply breaker(s) or remove the supply fuses. This equipment may have more than one power connection point. Torque screws to 7 inch-lbs. See *Figure 2* for details.
   Use appropriately rated conductors and maintain at least 0.25 in (6mm) separation between the low voltage conductors and line voltage conductors within the wiring area. Follow all applicable state, local and federal codes.
3. **CONNECT CLASS 2 CONDUCTORS TO LMP PANEL POWER SUPPLY**
   Connect Class 2 wiring between the LME 924 and LMP Controller in the LMP panel.
   Note:
   The LME 924 is powered by the LMP Controller via the +24VDC In and Com terminals.
   See *Figure 3* for details.
4. **AUX CONTACTS**
   Connect auxiliary contact wiring as shown in *Figure 4 (If required)* .

Normal and Emergency Power Sources

1. LMP panels can contain both normal and emergency power, **only** in separated areas and if permitted by local electrical codes.
2. A LMP HVB emergency barrier **must** be installed when using both normal and emergency power in the same panel.
3. **Normal and emergency power can ONLY be mixed in feed through panels.**

See *Figures 3 and 4* details.

DO NOT mix normal and emergency power in main lug panels!

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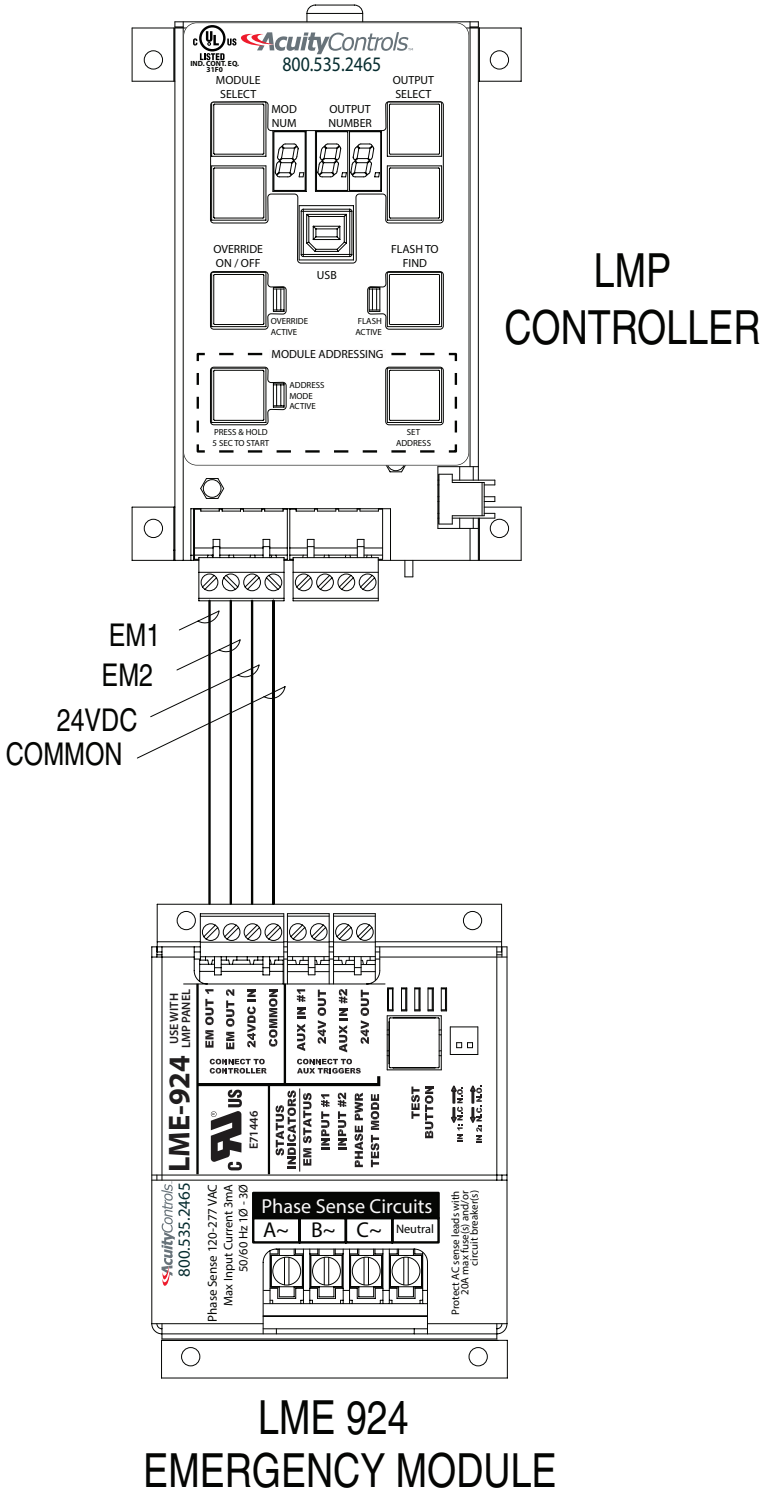
Connect wiring as shown below between the LME 924 and LMP Controller.
The LME 924 is powered by the LMP Controller via the +24VDCIN and COM terminals.



Note:
All wiring shown in this figure is Class 2

Figure 2 - Class 2 Wiring between LME 924 module and LMP Controller

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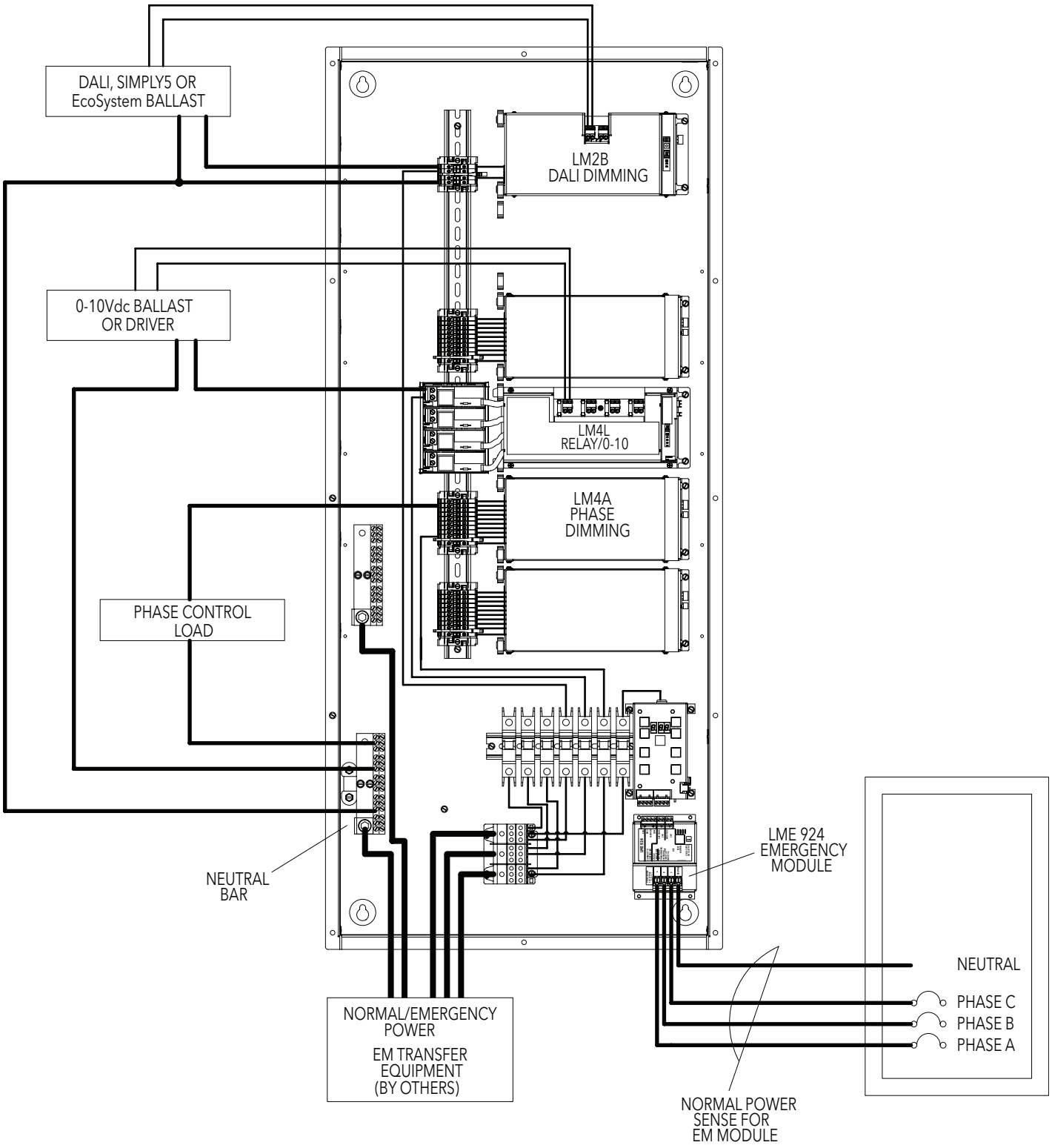

Figure 3 - LMP Panel Fed By Emergency Transfer Equipment (by others)

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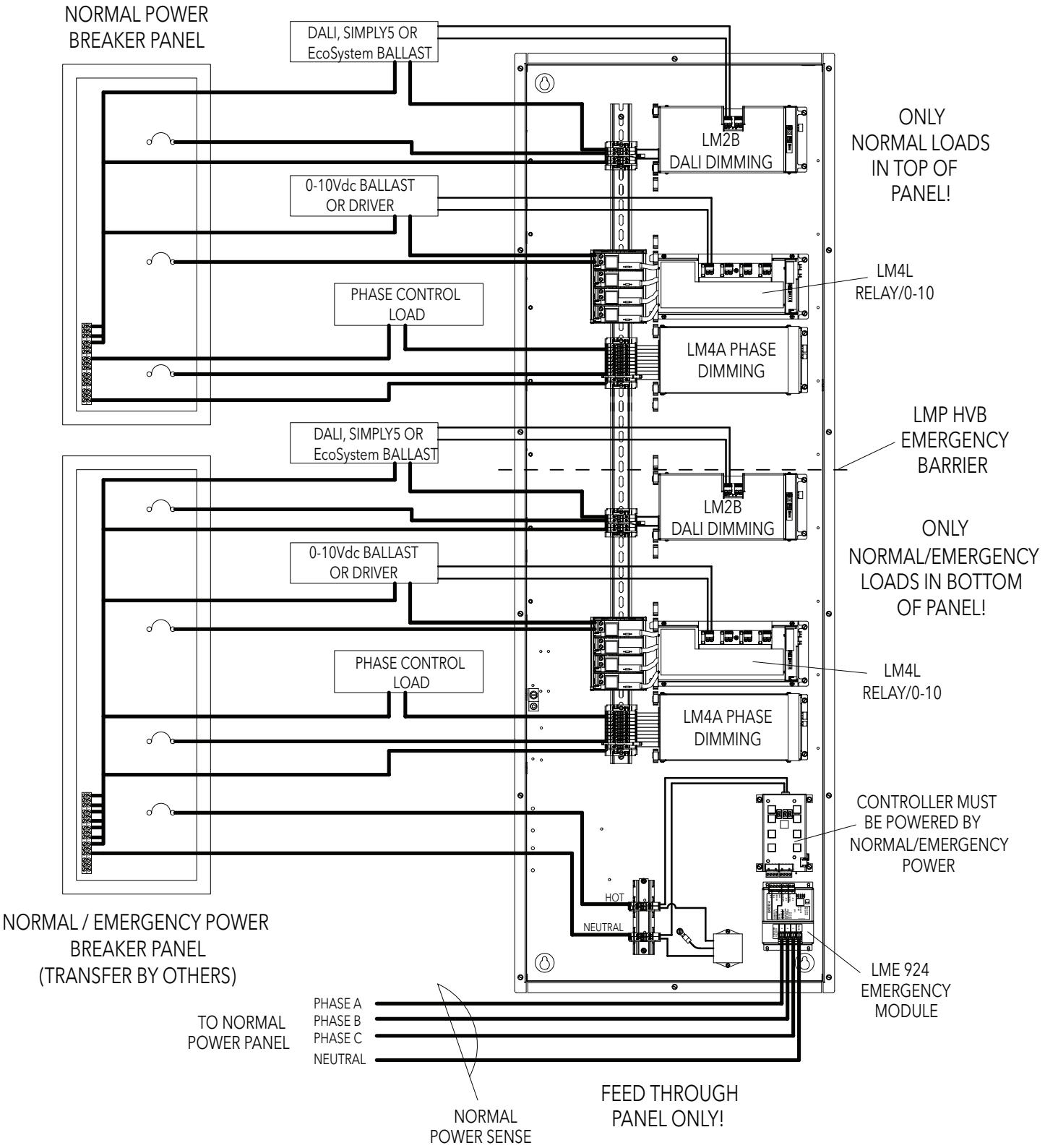

Figure 4 - LMP Panel Fed By Normal Power and Emergency Transfer Equipment (by others)

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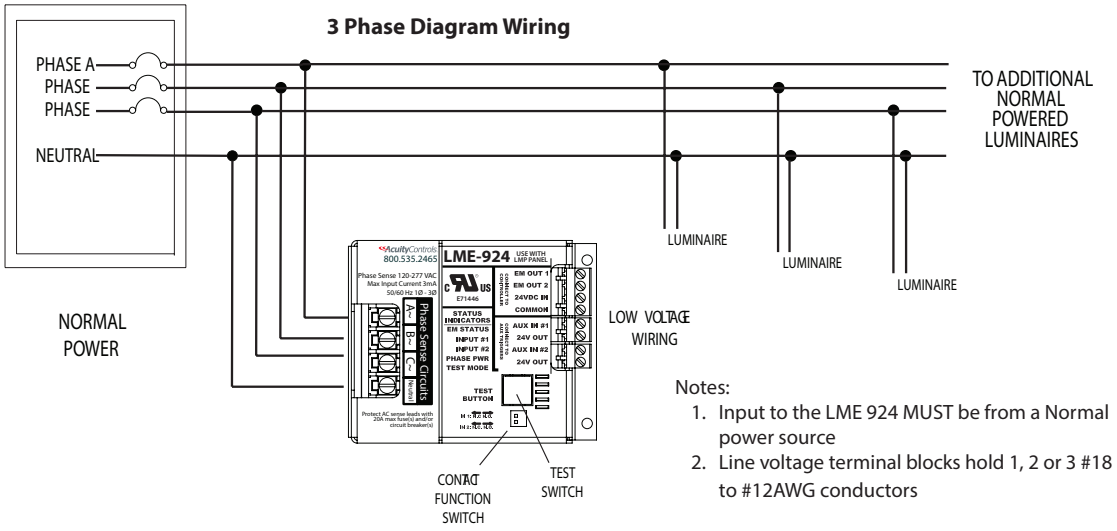
Turn power off – locate and lock out the supply breaker(s) or remove supply fuses. This equipment may have more than one power connection point.



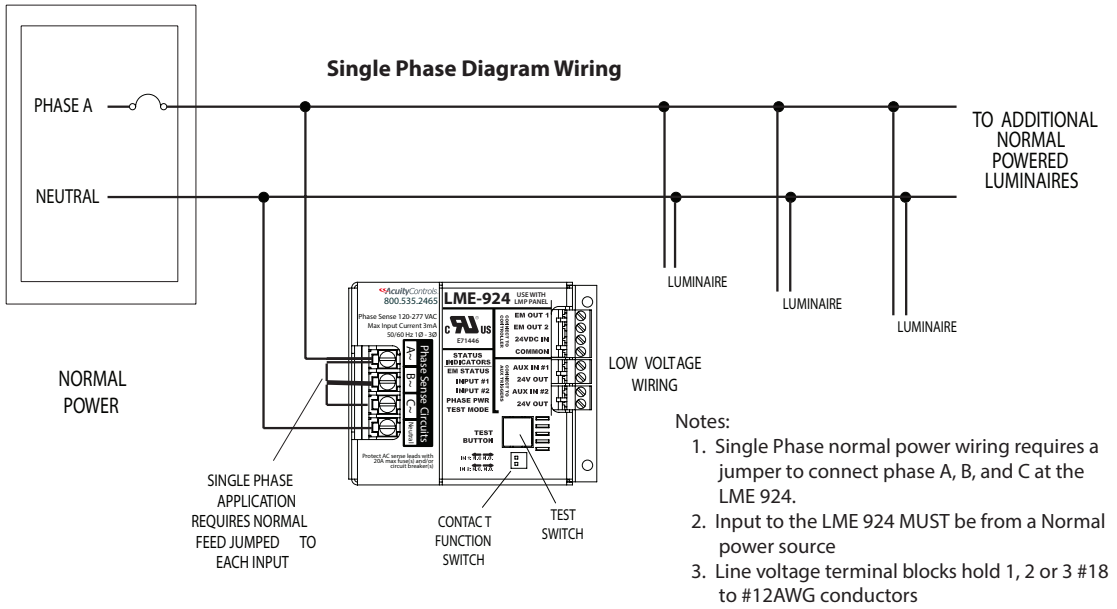

Single Phase Diagram Wiring
PHASE A
NEUTRAL
NORMAL POWER
LME-924
TO ADDITIONAL NORMAL POWERED LUMINAIRES
LUMINAIRE
LUMINAIRE
LUMINAIRE
LOW VOLTAGE WIRING
SINGLE PHASE APPLICATION REQUIRES NORMAL FEED JUMPED TO EACH INPUT
CONTACT FUNCTION SWITCH
TEST SWITCH
Notes:
1. Single Phase normal power wiring requires a jumper to connect phase A, B, and C at the LME 924.
2. Input to the LME 924 MUST be from a Normal power source
3. Line voltage terminal blocks hold 1, 2 or 3 #18 to #12AWG conductors

Figure 5 - Normal Power Sense Wiring Details

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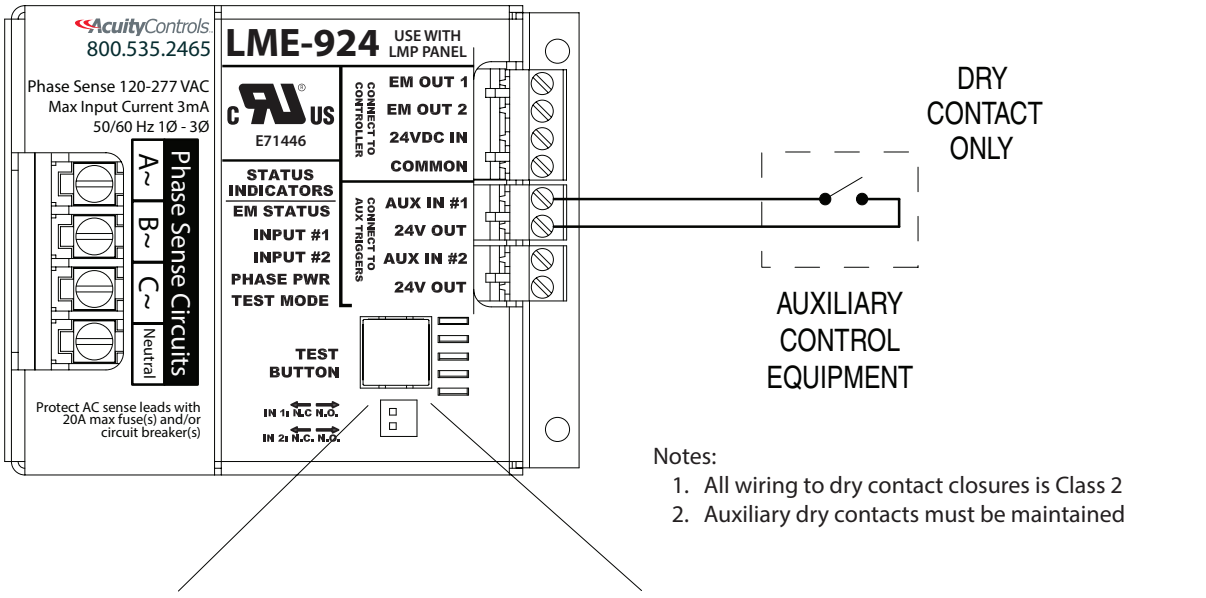
Auxiliary Contacts

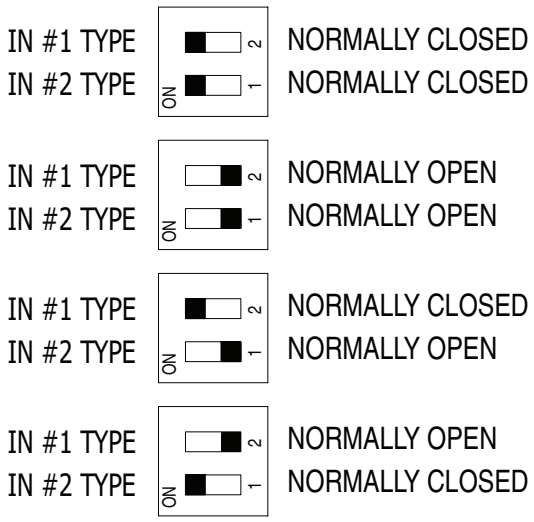
Auxiliary Contacts from Fire Alarm Control Panels, Security Systems, or a remote test switch may trigger emergency mode if connected using the auxiliary contact closure input terminals on the LME 924. Dry contact relays or maintained switches may be used. Consult equipment manuals to verify auxiliary switches are dry contacts and maintained when active.

When contact is made by the auxiliary equipment the LME 924 will trigger emergency mode and hold that mode until the contact(s) opens. There are (2) auxiliary contacts on the LME 924 which share equal priority. When EITHER auxiliary contact is closed emergency mode will be triggered.



Notes:
1. All wiring to dry contact closures is Class 2
2. Auxiliary dry contacts must be maintained

DIP SWITCH SETTINGS



Auxiliary equipment may use maintained normally closed or maintained normally open contacts. The DIP switches on the LME 924 select whether the Aux 1 or Aux 2 inputs are normally open or closed. Use the chart at left to configure appropriately.

Figure 6 - Auxiliary Contact Wiring Details

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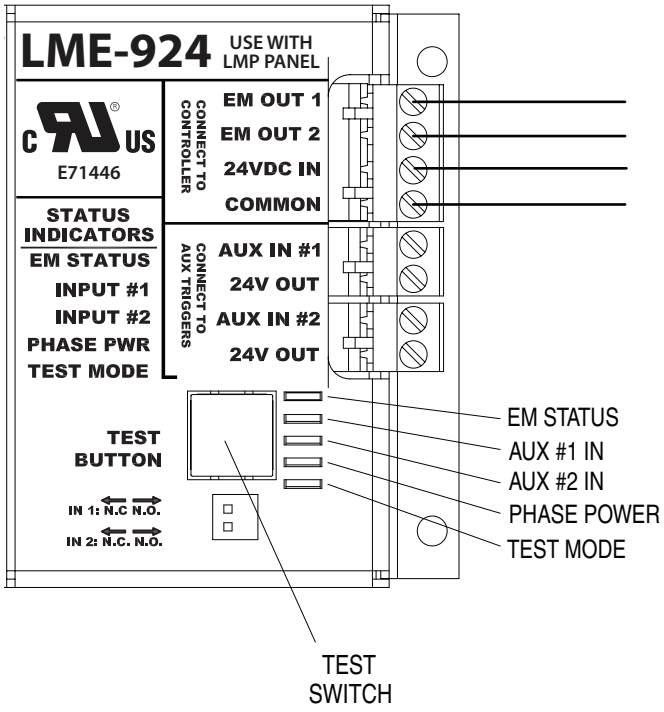
Testing and Diagnostics

1. **ENERGIZE EQUIPMENT**
   Once the LME 924 wiring is completed, energize the feed breakers for the LME 924 and panel lighting controller.
2. **VERIFY OPERATION**
   Verify the "Phase Power" LED is illuminated on the LME 924. If not illuminated, verify +24VDC is available at the "+24VDC In" and COM terminals (see step 3). If +24VDC is present, verify 120 or 277VAC is present on all three phase inputs relative to the Neutral terminal.

   If all voltages appear correct and the LME 924 is still not functioning, contact the factory for assistance at 1.800.535.2465.
3. **VALIDATE OPERATION**
   STEP 1. Only the Phase LED should be illuminated. If either Auxiliary In LED is illuminated, clear the external trigger or unplug the terminal block from the LME 924 in order to test standard operation.
   STEP 2. Once the Phase LED is lit, press the "TEST" Button. Emergency mode will be active for 30 seconds, verify the Test LED blinks and EM Status LED(s) is on.
   STEP 3. Once the test completes, test all auxiliary emergency contacts (if used) by triggering the contact closure on the remote equipment. The AUX 1 or AUX 2 LEDs will illuminate when the inputs are triggered.



LED STATUS SUMMARY

LED	Color	Indication
EM Status	Red	ON –when Emergency is active OFF – no emergency
Aux In #1	Green	SOLID – when active (maintained) OFF – aux input is not maintained
Aux In #2	Green	SOLID – when active (maintained) OFF – aux input is not maintained
Phase Power	Green	ON – when phase power is detected OFF – when phase power is low*
Test Mode	Green	BLINK – flashes when test is active OFF – in normal mode

* Mains voltage may still be present, but too low

Figure 7 - LED Indication

Technical Support
For additional support, call 1.800.535.2465

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